

*California*

**CZ12 • 12" Subwoofer**

Installation Instructions / Owner's Manual

*California* By **PROFILE**<sup>®</sup>

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# INTRODUCTION

Congratulations on your purchase of a California state-of-the-art subwoofer component. Your selection of a California car audio product indicates a true appreciation of fine musical reproduction. Whether adding to an existing system or including a California subwoofer in a new system, you are certain to notice immediate performance benefits.

## KEEP YOUR SALES RECEIPT

Take this time to attach your sales receipt to the manual and put in a safe place. In case of any unforeseen reason this product may need warranty service, your receipt will be necessary to establish purchase date.

## RECOMMENDATION

A speaker's performance is only as good as its enclosure. Proper installation, enclosure size and crossover frequency will maximize the overall performance of the subwoofer. To properly design and build an enclosure, knowledge of woodworking as well as the proper tools are required. We highly recommend that you have your enclosure built by an authorized Profile retailer. However, if you decide to install it yourself, we have included the parameters of each driver and recommended enclosure sizes.

## WARNING!

**California subwoofers are capable of high sound pressure levels. Exposure to high sound pressure levels can cause hearing loss or damage. Listening to your system at loud levels while driving, will impair your ability to hear traffic sounds and emergency vehicles. Use common sense when listening to your system.**

**When installing your subwoofer enclosure in the vehicle, fasten it securely to the frame or floorpan. If the enclosure is not secured properly, there is danger of it becoming a projectile in a collision**

Due to continuing product improvement, specifications and design are subject to change without notice.

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# PRODUCT SPECIFICATIONS

Free Air Resonance.	(FS)	33
Total Q of driver @ FS including all resistance's.	(Qts)	.35
Q of driver @ FS including non electrical resistance only.	(Qms)	7.01
Q of driver @ FS including electrical resistance only.	(Qes)	0.37
The driver's compliance expressed as an equivalent volume of air (Cubic Ft.).	(Vas)	1.10
The driver's linear displacement (inches).	(Xmax)	.27
The DC resistance of the driver's voice coil (ohms).	(Re)	3.6
R.M.S. Power rating of driver (Watts).	(W)	175
The driver's voice coil inductance (millihenries).	(Le)	2.5
The drivers sensitivity (dB).	(Sens)	89

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## CALCULATING ENCLOSURES

It is difficult to give exact box dimensions that are universal for all cars and trucks. It is for this reason that you must be able to calculate the space in which you have available in order to achieve the proper air volume required.

It is recommended to build your enclosure from 3/4" thick MDF (medium density fiberboard). Make sure the enclosure is sealed air tight.

### Calculating External Volume

- 1.) To calculate box volume, measure the outside Width x Height x Depth of the enclosure. Example  $12" \times 14" \times 9" = 1512"$ .
- 2.) Next you must convert cubic inches into cubic feet. To do this, you must divide the cubic inch total by 1728". Example  $1512 / 1728 = .875$  Cubic feet

### Calculating Internal Volume

- 1.) To calculate the internal (net) volume of the above box you must first multiply the thickness of the wood you are using by Two (2). Example  $3/4" \times 2 = 1.5"$ .
- 2.) Next subtract 1.5 from each of the outside measurements of the box.

Width	Height	Depth
$12 - 1.5 = 10.5$	$14 - 1.5 = 12.5$	$9 - 1.5 = 7.5$

- 3.) Multiply the new totals (H x W x D) Example:  $10.5 \times 12.5 \times 7.5 = 984.375$
- 4.) Next you must convert cubic inches into cubic feet. To do this, you must divide the cubic inch total by 1728" Example  $984.375 / 1728 = .5696$  Cubic feet.

# RECOMMENDED ENCLOSURES

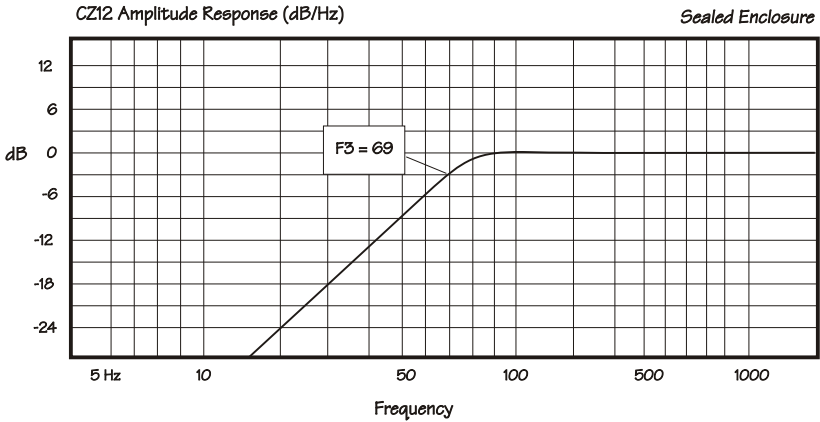
Please Note: Our suggested box volumes are given as internal air requirements

## Sealed Enclosure

Box Volume \* 1.0 Cu Ft.

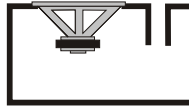


\* Box is given as internal air volume including driver Displacement.

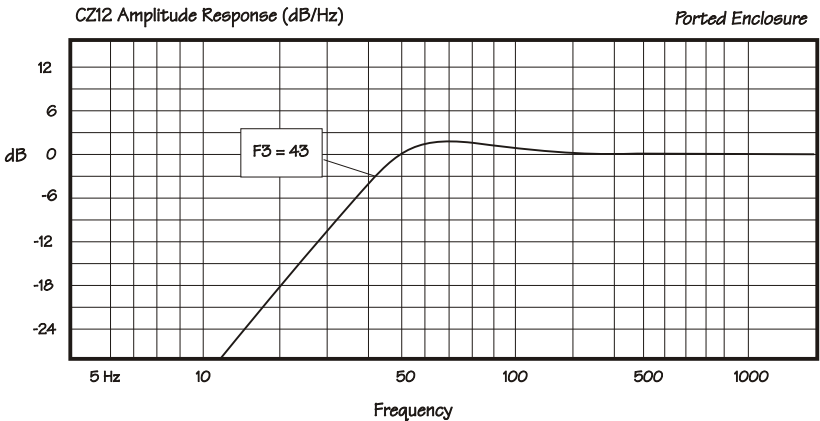


## Ported Enclosure

Box Volume \* 2.0 Cu Ft.  
Port Frequency (Fb) 40Hz  
Port Diameter 4 Inches  
Port Length 7.7 Inches



\* Box is given as internal air volume including port and driver displacement.



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